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A GLOSSARY OF PHYSICAL TERMINOLOGY

LE ROY D. WELD

This paper is essentially an exhibit of a piece of work upon which the writer has been engaged for about two years, and which has reached such a stage of progress as to justify bringing it to the attention of the Physics Section.

The undertaking in question is the compilation of a glossary of those specialized words and phrases which constantly confront the reader in modern physical literature. One has only to glance through a few paragraphs of any article in the *Physical Review* or similar publication, to be impressed with the complexity of the vernacular which must be interpreted in order to follow the author's thought. The vocabulary of physics has, in fact, grown to such proportions as to be quite bewildering to the physics student and often puzzling even to the trained physicist. When one encounters in the literature such terms as *enthalpy*, *hemi-alpha group*, or *magnetophotophoresis*, and has never heard of them, or has forgotten the exact statement of *Trouton's law*, or what a *Jellet-Cornu* prism is like, or just how the *Righi-Leduc effect* differs from the *Ettingshausen effect*, one feels the need of a concise glossary for convenient reference.

Specialized groups have from time to time prepared and agreed upon lists of definitions within their own fields, such for example, as electrotechnology, acoustics, and photometry. But so far as I can learn, no attempt has been made to assemble these lists, and no comprehensive glossary of general physical terminology has ever been published.

With these facts in mind, in 1931, I began compiling a card index of definitions, haphazard at first, but soon as a systematic undertaking, primarily for the use of my department. As the nature of the task became clearer, help was sought through correspondence with many physicists in this country and abroad, some of the specialized lists of definitions above referred to were secured, and information was obtained from every available source; until now the file contains definitions of from 3500 to 4000 terms, many of them doubtless imperfect or incomplete, but nonetheless useful.

The work has proved most fascinating, and new terms are constantly being added.

To convey an idea of the scope of the work undertaken, there is here exhibited a small section of the glossary. I will take out, at random, two or three sample bunches of cards, a few of which may be quoted.

(The terms heading a considerable number of cards were read at this point, as also a few typical definitions.)

No attempt is made to express great refinement of meaning, to "standardize" terms, or to settle controversial questions of terminology; the aim being rather to provide a useful working vocabulary for the student and the physicist as he reads the literature. A limited selection of terms from the fields of physical chemistry, astrophysics, engineering, meteorology, and mathematics, such as often occur in the physical journals, is being included.

It is natural to inquire whether the glossary is ever to be published. The only answer to that question is that I feel too keenly the limitations of the sources now available, and of my own capabilities, to undertake such a publication on my own account at any near date. There is reason to hope that the American Physical Society, the Institute of Physics, or the National Research Council may take over the task of criticizing, extending, and perhaps ultimately publishing the collection, some negotiations having been conducted with that in view. But at present it is possible only to report progress, and to invite the physicists of Iowa to make such use of the collection in its present state and to supply such omissions from its content as may be possible through correspondence or direct consultation. It will be a pleasure for me to co-operate with any physicist or physics student in tracing any terms of whose meaning he may be uncertain.

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